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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,998	09/25/2003	Sunil R. Atri	42P16740	9765

8791 7590 05/18/2006

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER

CHASE, SHELLY A

ART UNIT PAPER NUMBER

2133

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/672,998	Applicant(s) ATRI ET AL	
	Examiner Shelly A. Chase	Art Unit 2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 13-25 is/are allowed.
- 6) ☒ Claim(s) 6, 7, 9, 10 and 12 is/are rejected.
- 7) ☒ Claim(s) 8 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

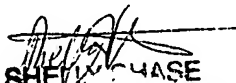
Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


SHELLY A. CHASE
PRIMARY EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 to 25 are presented for examination.

Specification

2. The disclosure is objected to because of the following informalities: Acronyms must be defined at their first usage in the specification; this objection applies to the abstract.

Appropriate correction is required.

Claim Objections

3. Claims 13, 17 and 20 are objected to because of the following informalities: please "change "the flash memory" to --- a flash memory--- recited on the last line of each claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 6 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al. (USP 6970969).

Claim 6:

Wong teaches a memory management operation comprising: a container object storing a single index table object (312) that includes a state field (314). Wong also teaches that the state field stores a plurality of bits that are used in the power loss recovery process (see fig. 3A-3C and col. 7, lines 37 to 62). Wong further teaches that the index table object is associated with a multiple segment (MS) table header wherein a plurality of data segments is stored (see col. 7, lines 6 to 11), interpreted as "selecting a multi-level state for the plurality of PLR status bits."

As per claim 9, Wong teaches that the flash memory is used in applications such as cell phone or personal digital assistance (PDA) (see col. 1, lines 30 to 45).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. (USP 6970969) in view of Hasbun et al. (USP 5544312).

Claims 7 and 10:

Wong substantially teaches the claimed invention. Wong teaches a memory management operation comprising: a container object storing a single index table object (312) that includes a state field (314). Wong also teaches that the state field stores a plurality of bits that are used in the power loss recovery process (see fig. 3A-3C and col. 7, lines 37 to 62). Wong further teaches that the index table object is associated with a multiple segment (MS) table header wherein a plurality of data segments is stored (see col. 7, lines 6 to 11), interpreted as "selecting a multi-level state for the plurality of PLR status bits."

Wong does not specifically teach protecting the flash memory with ECC except for the PLR status bits; however, Hasbun in an analogous art teaches that a cyclic redundancy process (CRC) ("ECC") is used to determine the validity of the headers (see col. 8, lines 26 to 50) and the CRC value check all the bits programmed in the header other than the power-off bits ("PLR status") (see col. 12, lines 10 to 29).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the steps of managing memory for detecting power loss of Wong to include a CRC computation for checking the header as taught by Hasbun since, Hasbun teaches that an effective method of identifying data during a power loss is achieved by performing a CRC calculation (see col. 6, lines 15 to 24). This modification would have been obvious because a person of ordinary skill in the art would have been motivated to employ a fast and effective method for detecting and correcting errors during a power loss as taught by Hasbun.

As per claim 12, Wong teaches that the flash memory is used in applications such as cell phone or personal digital assistance (PDA) (see col. 1, lines 30 to 45).

Allowable Subject Matter

8. Claims 8 and 11 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 1 to 5 and 13 to 25 are allowed.


10. The following is a statement of reasons for the indication of allowable subject matter: the prior art made of record teaches a method and an apparatus for managing a memory in detecting and recovering from power loss as detailed above; however, the prior art made of record taken alone or in combination fails to teach or fairly suggest or render obvious the novel step recited in the independent claims of "rearranging a plurality of power loss recovery (PLR) status bits such that all the PLR status bits are extracted from a header and data area and coalesced into a predetermined region."

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelly A. Chase whose telephone number is 571-272-3816. The examiner can normally be reached on Mon-Thur from 8:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SHELLY CHASE
PRIMARY EXAMINER